DOCUMENT RESUME

ED 324 878 EC 232 423

AUTHOR Sternberg, Les
TITLE Analyzing the Non-Linguistic Communication Functioning of Persons with Mental Retardation.
PUB DATE May 90
NOTE 8p.; Paper presented at the Annual Meeting of the American Association on Mental Retardation (Atlanta, GA, May 27-31, 1990).
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; *Body Language; Communication Skills; Language Acquisition; Longitudinal Studies; *Nonverbal Communication; *Research Needs; *Severe Mental Retardation

ABSTRACT

The paper proposes that research efforts should be focused on understanding the non-linguistic functioning of individuals with severe degrees of mental retardation, recognizing its place as a potential stand-alone system in satisfying communicative needs and options, and understanding the mechanisms that account for the presence and use of such a system. It describes a research project which analyzed the non-linguistic functioning of persons with profound mental retardation who resided in a California education/treatment center. Subjects tended to use elemental forms of non-linguistic communication which served basic functions. Low frequency of pointing gestures, coupled with higher than expected frequencies of more elemental forms, may indicate that pointing can serve as a transition bridge to the acquisition of more refined gestures. The low frequency of natural gestures may indicate that formal language acquisition should not be expected of this population. Project data indicated the need to incorporate potential co-occurrence measures, such as cognitive and environmental intrusiveness measures, into the research paradigm. Includes 14 references. (JDD)

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Analyzing the Non-Linguistic Communication Functioning of Persons with Mental Retardation

Les Sternberg

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Abstract

The acquisition and performance of non-linguistic skills by individuals with severe handicaps have recently received increased research attention. This presentation describes a longitudinal research investigation of non-linguistic skills performance of a group of adults with profound mental retardation. Results of the investigation generated hypotheses pertaining to the development of socially directed communication and formal language acquisition. The data also point to the need for further and more controlled research endeavors.

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Paper presented at the Annual Meeting
of the American Association on Mental Retardation
Atlanta, GA, May 27-31, 1990

Analyzing The Non-Linguistic Communication Functioning of Persons with Severe to Profound Mental Retardation

It has recently been documented that many individuals experiencing more severe degrees of mental retardation may never display successful communication using a formal language system (i.e., a generative system using words, signs, code systems, etc.; Sternberg & McNerney, 1988). In the past, researchers and practitioners have attempted to assist these individuals who use non-linguistic communication skills to develop linguistic (language-based) systems of communication. Some efforts have proven worthwhile, whereas others have failed (Rowland & Stremel-Campbell, 1987). What has become apparent is the need to refocus some of our efforts to understand non-linguistic functioning, its place as a potential stand-alone system in satisfying the communicative needs and options for those who employ the system, and the mechanisms that appear to account for its presence and use.

Prior research pertaining to non-linguistic skills development and performance of persons with severe or profound mental retardation has focused on causality (e.g., what cognitive indicators may or may not serve as prerequisites or precursors to communicative functioning: Harding & Golinkoff, 1979; Bates, Benigni, Bretherton, Camaioni, & Volterra, 1977; Lobato, Barrera, & Feldman, 1981); descriptive analyses of the types of non-linguistic behaviors and the functions they serve (Donnellan, Mirenda, Mesaros, & Fassbender, 1984; Kaiser, Alpert, & Warren, 1987; Orelove & Sobsey, 1987; Russell, 1984; Stremel-Campbell, Clark-Guida, & Johnson-Dorn, 1984); and the effect of various

environmental variable manipulations on the social-interactive parameters of isolated types of communicative functioning (Halle, 1987; Hunt, Alwell, & Goetz, 1988; Reichle, Rogers, & Barrett, 1984). A major void exists, however, in research into the overall capacity of multiple, interactive environmental manipulations to account for non-linguistic communicative functioning. It is the purpose of this presentation to summarize the efforts of a jointly sponsored research project between the Sonoma (California) Developmental Center and the Department of Exceptional Student Education at Florida Atlantic University to fill this void.

The research project involved an in-depth analysis of non-linguistic functioning of persons with profound mental retardation who resided within a residential education/treatment center in California. The project had been designed to answer a number of questions: (1) What types of non-linguistic communicative behaviors do these individuals use within typical communicative interchanges? (2) What major purposes do those behaviors serve for the individuals? (3) What environmental variables (antecedent and consequent) describe the situations within which non-linguistic communication took place? (4) What environmental variables, both individual and clustered, tend to account for the presence of non-linguistic functioning? (5) What does the multivariate, interactive data indicate about increasing the non-linguistic communication performance of persons with severe to profound mental retardtion?

Data from the project were analyzed using descriptive, correlational, and multiple regression analysis procedures. On

an overall basis, the descriptive data indicated that subjects of the investigation tended to use what one would consider to be elemental forms of non-linguistic communication which served basic (primary) functions. Although there were significant and strong correlations between certain antecedent environmental variables and various modes and functions of communication, multiple regression analyses indicated that the amount of performance variance accounted for by these variables was extremely limited. These data indicate the need to incorporate other potential co-occurrence measures into the research paradigm (e.g., cognitive and environmental intrusiveness measures).

Data pertaining to performance of specific types of non-linguistic modes supported the generation of two hypotheses. First, the low frequency of pointing gestures coupled with higher than expected frequencies of more elemental forms may indicate that this non-representational gesture can serve as a transition bridge to the acquisition and performance of more refined gestures. Second, the low frequency nature of idiosyncratic (natural) gestures may indicate that formal language acquisition should not be expected of this population. These data also confirm the need to develop and implement experimental designs which more adequately address the research questions being posited (see Sternberg, 1990 for a comprehensive analysis of the data).

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